

USSR / Human and Animal Morphology (Normal and
Pathological). Arterio-Vascular
System. Vessels.

S

Abs Jour : Ref. Zhur - Biologiya, No. 3, 1959, 12326

dimensions. Thus, in neck fractures of the upper epiphysis of the femur, the blood supply of its head is restored through the V of the preserved synovial membrane and RL, first through V dilation and later also through an increase of their quantity. The presence of necrotic foci in the head testifies that the blood supply through the V of RL is not always sufficient.

Card 3/3

VICHITOMOVA, T.K., kand.med. nauk

Unusual case of adenomas of four endocrine glands. Probl. endokr. gormonoter. 9 no.4:105-107 J1-Ag'63 (MIRA 17:1)

1. Iz patologoanatomicheskogo otdela (rukovoditel' - prof. A.V. Smol'yannikov) Nauchno-issledovatel'skogo instituta skoroy pomoshchi imeni N.V. Sklifosovskogo (dir. - zaslu-zhennyy vrach RSFSR M.M.Tarasov, nauchnyy rukovoditel' chlen korrespondent AN SSSR B.A.Petrov).

SUBOTSKIY, V.Ye., kand. med. nauk; VICHTOMOVA, T.K., kand. med. nauk;
FIDRUS, Ye.I.

Primary retroperitoneal sclerosing fibrosis in the pathogenesis
of diseases of the urinary organs. Urologia no.6:49-52 N-D '63.
(MIRA 17:9)

1. Iz Moskovskogo gorodskogo ordena Trudovogo Krasnogo Znameni
nauchno-issledovatel'skogo instituta skoroy pomoshchi im.
Sklifosovskogo (glavnyy khirurg-chlen-korrespondent AMN SSSR
prof. B.A. Petrov).

BARSKAYA, T.A.; SYCHEVA, Z.F.; VICHURINA, G.A.

Effect of soil temperature on the development of internal
brown spot in potatoes. Agrobiologia no.6:893-897 N-D '63.
(MIRA 17:2)

1. Institut biologii, Petrozavodsk.

ISAKOV, Yu.V., kand. med. nauk; VICHTOMOVA-OSIPENKOVA, T.K., kand. med. nauk

Drainage of the respiratory tract through tracheostomy in disorders of its patency in the lower sections. Trudy Inst. im. N.V. Sklif. 8:145-150 '63. (MIRA 18:6)

1. Institut skoroy pomoshchi imeni Sklifosovskogo, Moskva.

VICHTOMOVA-OSIPENKOVA, T.K., kand. med. nauk; BELYAYEV, N.S.

Closing the defects of the skull and the dura mater. Trudy Inst.
im. N.V. Sklif. 8:154-157 '63. (MIRA 18:6)

1. Institut skoroy pomoshchi ineni Sklifosovskogo, Moskva.

VICHTOMOVA-OSIPENKOVA, T.K., kand. med. nauk

Analysis of lethal outcomes in fractures of the upper femoral epiphysis; based on data of the Sklifosovskii Institute of First Aid. Ortop., travm. i protez. 26 no.2:56-58 F '65. (MIRA 13:5)

1. Iz Moskovskogo instituta skoroy pomoshchi imeni Sklifosovskogo (dir. - zasluzhennyy vrach UkrSSR M.M.Tarasov) i Instituta rentgenologii i radiologii (dir. - prof. I.G.Lagunova), Moskva. Adres avtora: Moskva Zh-28, Solyanka, d.7, Institut rentgenologii i radiologii, Patomorfologicheskiy otdel.

VASIL'YEV, R.F.; VICHUTINSKIY, A.A.

Nature of the relationship between chemiluminescence and oxidation
by molecular oxygen. Dokl. AN SSSR 142 no.3:615-618 Ja '62.
(MIRA 15:1)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom
V.N.Kondrat'yevym.

(Luminescence) (Oxygen)

40391

3/020/62/145/006/015/015

B101/B144

5.3300

AUTHORS: Vasil'yev, R. F., and Vichutinskiy, A. A.

TITLE: Application of chemiluminescence to measure the ratios of elementary reaction constants of hydrocarbon oxidation in liquid phase

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 145, no. 6, 1962, 1301-1304

TEXT: A former paper (DAN, 142, no. 2, 15 (1962)) showed that the chemiluminescence during initiated oxidation of hydrocarbons drops rapidly as soon as the oxygen reserves in the vessel are consumed. This effect is suggested for the measurement of w_{O_2} and $[O_2]_0$. The following reactions

are indicated: chain initiation: rate w_1 (1); chain propagation: $R + O_2 \xrightarrow{k_2} RO_2$ (2); $RO_2 + RH \xrightarrow{k_3} ROOH + R'$ (3); chain termination: $R + R \xrightarrow{k_4}$ termination products (TP) (4); $R + RO_2 \xrightarrow{k_5} TP$ (5); $RO_2 + RO_2 \xrightarrow{k_6} TP + O_2$ (6).

If (4) and (5) are negligible, $t_{dr} = [O_2]_0 / w_{O_2}$ holds for the moment t_{dr}

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Application of chemiluminescence...

S/020/62/145/006/015/015

B101/B144

of the luminescence drop. From G. Russell's equation for w_{O_2} (J. Am. Chem.

Soc., 79, 3871 (1957)) the following function is derived:

$1/t_{dr} = (k_3/\sqrt{k_6})(\sqrt{w_i}/[O_2]_0)[RH] + w_i/2[O_2]_0$ (9). This equation gave values for the O_2 content three times as high as those obtained

experimentally during the oxidation of ethyl benzene or cumene initiated by α, α' -azo-bis-isobutyro nitrile, and values for the k_3/k_6 ratio

correspondingly only $1/3$ as high. The last term of the right-hand side of Eq. (9) is corrected into $3w_i/2[O_2]_0$ allowing for the reactions of the

primary radical r_o of the initiator: $w_i \rightarrow r_o$; $r_o + O_2 \rightarrow r_o O_2$;

$r_o O_2 + RH \rightarrow r_o OOH + R$. The values obtained from this equation are

consistent with F. Russell's and other data published for $k_3/\sqrt{k_6}$ and $[O_2]_0$.

$[O_2]_0 = w_i t_{dr}$ holds for $[RH] = 0$. $k_3/\sqrt{k_6}$ for n-heptane and n-decane was so small that the experimental values in the diagram $1/t_{dr}$ versus $[RH]$ were

on a straight line parallel to the abscissa. The determination of the Card 2/3

Application of chemiluminescence...

S/020/62/145/006/015/015
B101/B144

oxidation rate by measurement of t_{dr} is suitable for those cases where it is difficult to measure p_{O_2} (viscous solvents, gas formation, high vapor pressure of reagents). At low temperatures and concentrations, this method is also applicable if the luminescence is intensified by activators. As the oxidation slows down toward the end of the reaction, the values obtained by means of chemiluminescence are too low by 0.5 - 1.5%. There are 2 figures and 2 tables.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR) ✓

PRESENTED: February 28, 1962, by V. N. Kondrat'yev, Academician

SUBMITTED: February 21, 1962

Card 3/3

5.5300

40045

S/076/62/036/008/006/011
B101/B144

AUTHORS: Vasil'yev, R. F., and Vichutinskiy, A. A.

TITLE: Intensification of chemiluminescence by luminescent admixtures

PERIODICAL: Zhurnal fizicheskoy khimii, v. 36, no. 8, 1962, 1799 - 1800

TEXT: The intensification of chemiluminescence from benzene + $5.9 \cdot 10^{-2}$ moles/l α, α' -azo-bis-isobutyronitrile (I) at 70°C by admixture of 9,10-diphenyl anthracene (II) (10^{-5} moles/liter), anthraquinone (III) ($2 \cdot 10^{-5}$ moles/liter), chlorophyll, or ethyl benzene (0.4 moles/liter) was investigated. Results: (1) With exclusion of air, the weak chemiluminescence of O_2 -saturated I ceases after about 280 sec owing to complete consumption of the O_2 . (2) Admixture of II increases the intensity of chemiluminescence from I by 15-20 times, admixture of III threefold. Extinction again occurs after about 280 sec. The same was observed when chlorophyll was admixed. The effect is explained by transfer of energy from the reaction products to the admixture molecules. The more likely this energy transfer, the stronger the increase of chemiluminescence
Card 1/2

S/076/62/036/008/006/011

Intensification of chemiluminescence... B101/B144

intensity. (3) Ethyl benzene intensifies chemiluminescence so that extinction occurs after about 170 sec. Oxidation is accelerated, and molecules of a different type are recombined: $RO_2 + R_1H \rightarrow RO_2H + R_1$; $R_1 + O_2 \rightarrow R_1O_2$. This sensibilization of chemiluminescence by admixing substances of good luminescence permits studies to be made at lower temperatures and concentrations, thus extending the use of the methods suggested (Dokl. AN SSSR, 142, 615, 1962; ibid., 144, 1962) for investigating the kinetics of oxidation in the liquid phase. There is 1 figure.

f

ASSOCIATION: Akademiya nauk SSSR, Institut khimicheskoy fiziki (Academy of Sciences USSR, Institute of Chemical Physics)

SUBMITTED: December 23, 1961

Card 2/2

S/020/63/149/001/016/023
B101/B144

AUTHORS: Vasil'yev, R. F., Vichutinskiy, A. A., Cherkasov, A. S.

TITLE: Chemiluminescence activated by anthracene derivatives

PERIODICAL: Akademiya nauk SSSR. Doklady, v. 149, no. 1, 1963, 124-127

TEXT: Luminescence spectra were used for studying how the oxidation of cyclohexane dissolved in benzene, or that of ethyl benzene by anthracene or its derivatives, is activated after having been initiated with α, α' -bis-isobutyric nitrile. The chemiluminescence spectrum of the oxidizing cyclohexane shows a slightly marked 430 - 450 m μ band. Addition of the activator changes the spectrum so as to make it identical with the fluorescence spectrum. Thus the reaction energy is transferred to the activator which is put into the excited singlet state. The effect of the anthracene derivatives is identical in the oxidation of cyclohexane and ethyl benzene. Bromo anthracene, dibromo anthracene, bromo-phenyl anthracene, dichloro anthracene and diphenyl anthracene are good activators. Anthracene, di-n-propyl anthracene and dimethyl anthracene are bad activators. The following ratios k_{PA}/f_P (1/mole) are given, where k_{PA} is

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Chemiluminescence activated by ...

S/020/63/149/001/016/023
B101/B144

the probability of energy transfer and f_p is the probability of emission: dibromo anthracene $6 \cdot 10^6$, bromo-phenyl anthracene $2 \cdot 10^6$, dichloro anthracene $2 \cdot 10^5$, bromo anthracene $2 \cdot 10^6$, and diphenyl anthracene $1 \cdot 10^4$. The intensification factor, κ , is described by: $(\kappa - 1)^{-1} = b + c[A]^{-1}$, where $[A]$ is the concentration of the activator. The low yield of chemiluminescence is connected with the low yield of excited product, but it is mainly due to the low effectiveness of excitation. From the fact that the activity of the anthracene derivatives increases with increasing content of halogen atoms and with the atomic number of the halogen, a triplet-singlet transfer is assumed. There are 4 figures and 1 table.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics of the Academy of Sciences USSR)

PRESENTED: October 1, 1962, by V. N. Kondrat'yev, Academician

SUBMITTED: September 24, 1962

Card 2/2

VASIL'YEV, R.F.; VICHUTINSKIY, A.A.; KARPUKHIN, O.N.; SHLYAPINTOKH, V.Ya.

Chemiluminescence in slow chemical reactions. Part 2: Effect of the chemical composition of the system on chemiluminescence intensity. Kin. i kat. 4 no.3:382-387 My-Je '63.
(MIRA 16:7)

1. Institut khimicheskoy fiziki AN SSSR.
(Luminescence) (Chemical reaction, Rate of)

L 9866-63 EPR/EWP(j)/EPF(c)/EWT(l)/EWT(m)/BDS--AFFTC/ASD--Ps-l/Pe-l/Pr-l--
 RM/WW/MAY/JFW/IJP(C) S/0048/63/027/006/0729/0734
 ACCESSION NR: AP3001348

AUTHOR: Vasil'yev, R. F.; Vichutinskiy, A. A.

TITLE: Investigation of chemiluminescence incident to oxidation reactions in the liquid phase [Report of the Eleventh Conference on Luminescence held in Minsk from 10-15 September 1962]

SOURCE: AN SSSR. Izv. Seriya fizicheskaya, v. 27, no. 6, 1963, 729-734

TOPIC TAGS: chemiluminescence, oxidation reactions, organic luminophors

ABSTRACT: Chemiluminescence defined as emission of radiation accompanying chemical reactions, was formerly thought to be a rare phenomenon peculiar to very fast reactions (flames) and exceptional exothermic liquid-phase reactions. Studies carried out since 1958 at the Institute of Chemical Physics, Academy of Sciences SSSR, have shown, however, that chemiluminescence is far more common than was assumed and occurs incident to many reactions, including industrially important ones like polycondensation (production of nylon), decomposition of peroxides and oxidation of hydrocarbons. Accordingly, research has been

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L 9866-63
ACCESSION NR:

ACCESSION NR: AP3001348

3

continued at the Institute, aimed at elucidating the mechanism, characteristics and potentialities of chemiluminescence. The present experiments were concerned mainly with hydrocarbon oxidation reactions in the liquid phase, which are chain radical reactions; the accompanying luminescence is excited incident to recombination of the "oxidized" radicals. The chemiluminescence spectra were observed by means of a highly sensitive set-up, incorporating a grating monochromator and a selected and cooled photomultiplier. In addition to primary chemiluminescence, secondary effects were investigated. It was found that the chemiluminescence accompanying oxidation of methylethylketone is quenched by excess oxygen and by phenol (an oxidation inhibitor); chemiluminescence is stimulated by the introduction into the solution of various luminescent substances: anthracene, derivatives of oxazole, pyrazole, chlorophyll and anthraquinone. The stimulation is due to energy transfer rather than acceleration of the reaction rate. In general, however, there is observed direct correlation between the chemiluminescence intensity and the reaction rate. It is suggested that chemiluminescence may be a useful means for investigating the luminescence properties of molecules, for the excitation occurs uniformly over the entire volume, involves small amounts of energy and is not subject to intercombinational forbiddenness. Orig. art. has: 6 figures.

Card 2/3

L 9866-63

ACCESSION NR: AP3001348

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ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, SSSR)

SUBMITTED: 00

DATE ACQ: 01Jul63

ENCL: 00

SUB CODE: PH,CH

NR REF SOV: 011

OTHER: 005

ja/nh
Card 3/3

L 12717-63 EWP(j)/EPF(c)/EWT(1)/EWT(m)/BDS AFFTC/ASD Pc-4/Pr-4 WW/RM/JFW
 ACCESSION NR: AP3002301 S/0062/63/000/006/1143/1143

AUTHOR: Emanuel', N. M.; Kruglyakova, K. Ye.; Vichutinskiy, A. A.; Vasil'yev, R. F. 71

TITLE: Chemiluminescence of solutions of desoxyribonucleic acid (DRNA) after irradiation with x-rays

SOURCE: AN SSSR. Izv. Otdeleniye khimicheskikh nauk, no. 6, 1963, 1143

TOPIC TAGS: chemiluminescence, desoxyribonucleic acid (DRNA), x-rays, irradiation, peroxides, recombination of radicals

ABSTRACT: A low intensity chemiluminescence has been discovered following irradiation of DRNA solution. The intensity falls exponentially with time. It was shown chemically that the peroxides arising from irradiation of DRNA decompose according to the same law at approximately the same rate. The chemiluminescence may arise from recombination of radicals formed from peroxides produced in the irradiation.

ASSOCIATION: Institut khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences SSSR)

SUBMITTED: 25 Feb 63
 SUB CODE : 00
 Card 1/1

DATE ACQ: 16 Jul 63
 NO REF SOV: 004

ENCL: 00
 OTHER: 000

"APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859710012-7

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"APPROVED FOR RELEASE: 09/01/2001

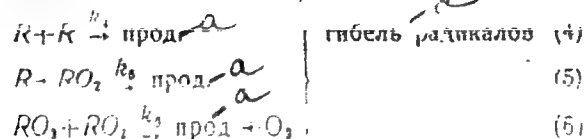
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APPROVED FOR RELEASE: 09/01/2001

CIA-RDP86-00513R001859710012-7"

2. 2000-000

ACCESSION NR: AT5002263



Several new methods were suggested and tested in this paper for the quantitative study of oxidation reactions. The method is based on the principle of competition (recombination of radicals, termination of radicals, etc.) and is explained using oxidation of organic compounds. The results were then compared with that in the literature because the results were not of the intensity.

The results of the study of the oxidation of organic compounds are presented in the form of a table. The results of the study of the oxidation of organic compounds are presented in the form of a table.

The results of the study of the oxidation of organic compounds are presented in the form of a table. The results of the study of the oxidation of organic compounds are presented in the form of a table.

Содержание: 2.2. Не опубликовано.

VICHUTINSKIY, A.A.

Chemiluminescent methods for determining the absolute rate constant of the rupture of peroxide radicals in the liquid phase. Dokl. AN SSSR 157 no.1:150-153 J1 '64 (MIRA 17:8)

1. Institut khimicheskoy fiziki AN SSSR. Predstavleno akademikom V.N. Kondrat'yevym.

ACCESSION NR: AP4034584

S/0076/64/038/004/0983/0985

AUTHORS: Vichutinskiy, A.A.; Prokof'yev, A.I.; Shabalkin, V.A.

TITLE: Application of the EPR method for investigation of free radicals formed by thermal decomposition of the dinitrile of α, α -azodiisobutyric acid

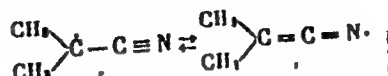
SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 4, 1964, 983-985

TOPIC TAGS: EPR method, azodiisobutyronitrile, free radical formation, thermal decomposition, cyanoisopropyl radical, EPR spectrum, recombination constant, termination constant

ABSTRACT: The EPR spectrum of the cyanoisopropyl radical, formed by thermal decomposition of the dinitrile of α, α -azodiisobutyric acid, was identified (fig. 1). It was found about 70% of the density of the unpaired electrons is on the tertiary carbon atom in the cyanoisopropyl radical and the remainder of the electron density is localized near the nitrogen atom, confirming the possibility of the existence of the radical in the mesomeric form:

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ACCESSION NR: AP4034584



The experiments were carried out on the radiospectrometer EPR-21Khp; the samples were heated to the required temperature in ampoules in the resonator by a hot air current. It was found possible to work with these unstable radical under nonstationary temperature conditions. The free radical concentration $[R]$ and initiation rate (w_i) were measured; the recombination constant k was calculated: $k(t) = w_i(t) / [R(t)]^2$. The termination constant is about 2×10^7 liter/mol. sec. Orig. art. has: 5 equations, 2 formulae and 2 figures.

ASSOCIATION: Akademii nauk SSSR (Academy of Sciences SSSR); Institut khimicheskoy fiziki (Institute of Chemical Physics)

SUBMITTED: 11 Apr63

ENCL: 01

SUB CODE: GC, GP

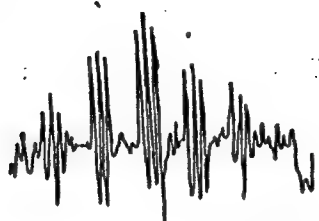
NR REP SOV: 001

OTHER: 002

Card 2/3

ACCESSION NR: AP4034584

ENCLOSURE: 01



20 Gpcm,
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fig. 1

EPR spectrum of the cyanoisopropyl radical (10% solution in benzene, $T = 401\text{ K}$)

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L 2131-65

ACCESSION NR AJ44112

8/03/76/04/035/006/1660/1672

AUTHOR: Vichutinskiy, A. A.

TITLE: The use of chemiluminescence in the study of flame oxidation initiators.

SOURCE: Zhurnal fizicheskoy khimii, 1965, 39, 1, 1-11.

TOPIC TAGS: luminescence, chemiluminescence, kinetics, oxygen, free radical, 11-antioxalic acid, nitrobenzoyl peroxide, oxidation, oxidation initiator

ABSTRACT: The purpose of this work was to apply the method based on the oxygen chemiluminescence to the study of the kinetics of the oxidation of organic compounds initiated by peroxides.

Systems of the type $\text{R}_2\text{O}_2 \rightarrow 2\text{RO} \rightarrow \text{R}_2\text{O}_2$ are considered. It is shown that the ratio K_2/K_1 is large in the case of peroxides of the type R_2O_2 and the independence of oxidation from the initial concentration of the peroxide, of the order of 10^{-3} moles/l. The investigated reactions constitute

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ACCESSION NR AP404175x

decomposition of α, α^1 -azobis(isobutyronitrile), (bicyclohexylperoxy) dicarboxylic acid and dibenzoylperoxide in inert solvents. The decomposition of these substances proceeds at a rate which is independent of the concentration of the initiator. It is shown that the decomposition of these substances is a first-order process. The rate constant of the decomposition of the initiator as well as the yield of radicals. Orig. art. has 5 figures.

ASSOCIATION: Institute Khimicheskoy fiziki Akademii nauk SSSR (Institute of Chemical Physics, Academy of Sciences, USSR)

SUBMITTED: 30Jun63

ENCL: 00

SUB CODE: 60, 61

OTHER: 002

Card 2/2

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... 032 000 0000 ...

AUTHOR: Vichutinskiy, A. A.

TITLE: Application of chemiluminescence for determining the relative activity of oxidation inhibitors

SOURCE: Zhurnal fizicheskoy khimii, v. 38, no. 9, 1964, 2296-2298

TOPIC TAGS: oxidation inhibitor, activity, relative activity, activity determination, chemiluminescence, ionol, alpha naphthol, beta naphthol, equipment, apparatus

ABSTRACT: The method described was used in determining the relative activity of oxidation inhibitors. The method is based on the determination of the rate of chemiluminescence of the reaction of the inhibitor with the oxidant. The rate of chemiluminescence is measured by means of a photometer. The rate of chemiluminescence is proportional to the rate of oxidation of the inhibitor. The rate of oxidation of the inhibitor is proportional to the relative activity of the inhibitor. The method is applicable to the determination of the relative activity of oxidation inhibitors in a short time so inhibitor consumption is small, as shown in the enclosed figure.

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ACCESSION NR: AF4046085

ENCLOSURE : 01

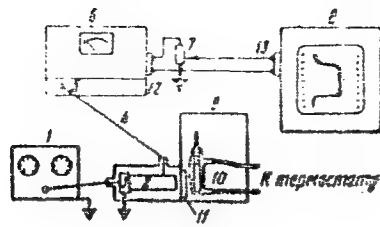


Fig. 1 Arrangement of counting equipment for registering super-weak luminescence

1 - high voltage rectifier SVV-1; 2 - photomultiplier PEU-39; 3 - photoresistor PEU-7
(with condenser); 4 - amplifier

13--EPP-08 output

Card 3/3

ALLABUTAYEV, K.A.; VASIL'YEV, R.F.; VICHUTINSKIY, A.A.; RUSINA, I.F.

Mechanism of chemiluminescence of oxidation reactions in
solutions. Trudy MOIP. Otd. biol. 21:8-18 '65. (MIRA 18:6)

EMANUEL', N.M.; KRUGLYAKOVA, K.Ye.; ZHIZHINA, G.P.; VICHUTINSKIY, A.A.;
VASIL'YEV, R.F.

Chemiluminescence of DNA solutions following X-ray irradiation.
Trudy MOIP. Otd. biol. 21:119-121 '65. (MIRA 18:6)

VICIC, D.; BABRENOVIC, B.

Demagnetizers. p. 1416. Vol. 9, No. 9, 1954.
TEHNIKA. Beograd, Yugoslavia.

SOURCE: East European Accessions List, (EEAL) Library
of Congress, Vol. 5, No. 8, August, 1956.

16.8500

37600
S/044/62/000/004/037/099
C111/C333

AUTHOR:

Viciu, A.

TITLE:

On the functions possessing the same system of equipotential surfaces or curves as the solutions of certain partial differential equations

PERIODICAL:

Referativnyy zhurnal, Matematika, no. 4, 1962, 44, abstract 4B194. ("Lucrări științ. Inst. politehn. Cluj". Cluj, 1960, 53-59)

TEXT:

The function $F(x,y,z)$ gives the same system of equipotential surfaces as the function $U(x,y,z)$, if there is a function $s(t)$ such that $U(x,y,z) = s[F(x,y,z)]$. The author gives necessary and sufficient conditions that a certain function gives the same system of equipotential curves or surfaces as the solutions of a partial differential equation. Four concrete equations are considered:

Card 1/2

On the functions possessing the same ...

S/044/62/OCO/004/037/039
C111/0333

$$\begin{aligned} \frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} + \frac{a^2 - 1}{a} \frac{\partial^2 U}{\partial x \partial y} &= 0, \\ \frac{\partial^2 U}{\partial x^2} + \frac{\partial^2 U}{\partial y^2} - 3 \frac{\partial^2 U}{\partial x^2 \partial y} - 3 \frac{\partial^2 U}{\partial x \partial y^2} &= 0, \\ \frac{\partial^2 U}{\partial x^2} \frac{\partial^2 U}{\partial y^2} + \frac{\partial^2 U}{\partial z^2} - 3 \frac{\partial^2 U}{\partial x \partial y \partial z} &= 0, \\ \sum_{i=1}^4 \frac{\partial^2 U}{\partial x_i^4} + 8 \frac{\partial^2 U}{\partial x_1 \partial x_2 \partial x_3 \partial x_4} - 2 \sum_{i \neq j} \frac{\partial^2 U}{\partial x_i^2 \partial x_j^2} &= 0. \end{aligned}$$

[Abstracter's note: Complete translation.]

Card 2/2

VICIU, M.; POPESCU, M.; DORIN, M.; BERCEANU, St.; BULCHITA, A.;
NESTOR, R.

Study of blood protein disorders in rheumatismal endocarditis and
endocarditis lenta; their pathogenetic and clinical significance.
Probl. reumat., Bucur. Vol. II.:201-220 1954.

(BLOOD PROTEINS

disord. in rheum. endocarditis & endocarditis lenta)

(ENDOCARDITIS, SUBACUTE BACTERIAL, etiol. & pathogen.

blood protein disord.)

(RHEUMATIC HEART DISEASE, etiol. & pathogen.

blood protein disord.)

VICIU, Emil.; ARSENESCU, Gh.; MUSTATA, N.; VOICULESCU, A.

Electrophysiological explanation of the phenomenon of partial contractions on isolated fibers and the intact heart; its experimental reproduction. Probl. card., Bucur. Vol. 1: 123-166 1955.

(HEART, physiology
electrophysiol. of contractions of isolated fibers &
intact heart of frog)
(ARRHYTHMIA, experimental
gallop rhythm, prod. in isolated frog heart)

VICIU, Emil.; ARSENESCU, Gh.

Hypotheses concerning the electrophysiology of electrocardiography.
Probl. card., Bucur. Vol. 1:167-239 1955.

(ELECTROCARDIOGRAPHY
electrophysiol. hypotheses)
(HEART, physiology
electrophysiol., ECG)

VICIU, Emil.; ARSENESCU, G.

Electrophysiology of myocardial infarct. Probl. card., Bucur.
Vol. 1:261-329 1955.

(MYOCARDIAL INFARCT, physiology
electrophysiol., vector cardiography)
(VECTOCARDIOGRAPHY, in various diseases
myocardial infarct)

VICIU, Emil.; ARSENESCU, G.

Electrophysiology of myocardial infarct. Probl. card., Bucur.
Vol. 1:261-329 1955.

(MYOCARDIAL INFARCT, physiology
electrophysiol., vector cardiography)
(VECTOCARDIOGRAPHY, in various diseases
myocardial infarct)

VICIU, E.

EXCERPTA MEDICA Sec.2 Vol.10/3 Physiology March 57

1199. VICIU E., ARSENESCU Gh., ZAMFIRESCU N., MUSTAȚĂ N. and VOICULESCU A. *Cercetări experimentale cu privire la acțiunea oxigenului asupra cordului de broască. Experimental study of the effect of oxygen on frog heart PROBL. CARDIOL. 1955, 2 (179-187) Graphs 3
Various dilutions of hydrogen peroxide in Ringer-Locke were used in experiments

1199 CONT

on the frog heart in situ. The local action and the effect of i.v. administration on the monophasic curve were studied. It appeared that oxygen favours repolarization (aerobic phenomena) and opposes depolarization (anaerobic phenomena). I. may even prevent sinus depolarization and produce bradycardia. These effects of oxygen are similar to those of substances favouring oxidative phenomena. It is concluded that oxygen therapy has practical applications in cardiopathies involving deficient repolarization owing to deficient oxygen supply to the myocardial fibre. Since oxygen impedes stimulus propagation, oxygen therapy is dangerous in any case where there is impairment of depolarization, e.g. in partial heart block, provided, of course, that the block in question is not due to an insufficient supply of oxygen.

EXCERPTA MEDICA--Sec. 6--Vol. 11/10--Cct. 57

VICIU E.

6004. VICIU E., VOICULESCU A. and IONESCU V. *Comportarea factorilor hemodinamici în boala hipertensivă în cursul testului la rece. The variations of haemodynamic factors in hypertonic disease during the cold test PROBL. CARDIOL. 1956, 2/1955 (189-223) Tables 1

In 24 patients with hypertension, a study was made of the haemodynamic factors which constitute or influence the blood pressure and it was concluded that the increase of the arterial pressure during the cold test (Hines and Brown) has 4 different causes: (1) increase of the minute volume, either because of increase of the systolic output or because of acceleration of the cardiac rhythm; (2) increase of the elastic resistance; (3) increase of the peripheral resistance (very rarely); (4) combination of various haemodynamic factors. Although the cold test is a pressor test, there may be variations, sometimes even pressure decrease, if every factor is considered apart. The increase of the pressure is not due to a single cause, viz. increase of the peripheral resistance, as is generally thought.

Graur - Bucharest

VICIU, Emil

Clinical and pathogenic problems of nephritis during endocarditis;
general aspects of the physiopathology of concomitant disorders with
latent clinical syndromes. Probl. card., Bucur. 2:39-59 1956.

(ENDOCARDITIS, complications

nephritis, clin. & pathogenic aspects)

(NEPHRITIS, etiology & pathogenesis

endocarditis, clin. & pathogenic aspects)

REVISTA MEDICA Sec. 6 Vol. 11/8 Aug. 57
VICIU E.

4612. VICIU E. "Cauzele inexprimitate electrocardiografice a unor angine pectorale și infarcte miocardice. The insufficiency of ECG evidence in certain forms of angina pectoris and myocardial infarction. PROBL. CARDIOL. 1956, 2 (97-140) Illus. 2

A description is given of the ECG modifications in attacks of angina pectoris and in myocardial infarction, and the electro-physiological interpretation of these modifications is discussed. Reference is then made to the lack of signs of infarction in some leads and of insufficiency in all the leads. The absence of ECG signs may have a technical cause: recording of a too small number of leads, or the too small size of the zones of ischaemia or of infarction, localization not favourable for ECG recording, multiple lesions, associated branch block, atrioventricular block, or ventricular hypertrophy. A discussion is presented of cases where there were ECG signs of infarction without anatomical evidence of this condition. This can be explained by invoking a reflex, of predominantly vagal or sympathetic nature, which may produce a monophasic curve in the absence of a lesion; the phenomenon of cellular response may also possibly be involved. Graur - Buchares:

VICIU, E.; ARSENESCU, GH.

Theory of the differential construction of the electrocardiogram.
Probl. card., Bucur. 2:141-178 1956.

(ELECTROCARDIOGRAPHY

theory of differ. construction of electrocardiogram)

VICIU, Emil; ARSENESCU, GH.; ZAMFIRESCU, N.; MUSTATA, N.; VOICULESCU, A.

Experimental studies of the effect of oxygen on the frog heart.
Probl. card., Bucur. 2:179-187 1956.

(MYOCARDIUM, physiology

eff. of intravenous inject. of oxygenated fluid on
electrophysiol. of frog heart in situ.)

(ELECTROCARDIOGRAPHY, experimental

eff. of intravenous inject. of oxygenated fluid,
in frogs.)

(OXYGEN, effects

on electrophysiol. of frog heart in situ, admin.,
intravenous inject. of oxygenated fluid.

VICIU, E.; VOIOULESCU, A.; IONESCU, V.

Behavior of hemodynamic factors in hypertensive disease during the cold test. Probl. card., Bucur. 2:198-223 1956.

(HYPERTENSION, diagnosis

cold pressor test, behavior of hemodynamics)

(BLOOD PRESSURE,

eff. of cold pressor test in hypertension,
hemodynamic factors)

EXCERPTA MEDICA Sec 18 Vol. 1/11 Cardiovas. Dis. Nov 57

VICIU E.
3059. VICIU E. and ARSENESCU Gh. Despre gradientul ventricular in plan frontal in caz de infarct *The ventricular gradient in the frontal plane in cases of infarction* Probl. Cardiol. 1956, 2 (225—234) Illus. 4

The generally accepted electrophysiological basis of the ventricular gradient (monophasic wave, local, potentials) is considered incorrect. Modification of this gradient is the result of the reciprocal action of several factors, such as the position of the heart and myocardial lesions, which, since they sometimes have an opposed vector action, render the modifications of the gradient unimportant, or eliminate them completely. The ventricular gradient is analysed in the frontal plane and different, sometimes normal, values are found, as a consequence of the interaction of ischaemia and the lesion.

Graur - Bucharest (VI, 18)

EXCERPTA MEDICA Sec 18 Vol. 1/11 Cardiovas. Dis. Nov 57

VICIU E.
3057. VICIU E., ARSENESCU Gh. and HUTTMANN A. Analiza vectorială a undelor electrocardiografice în infarctul miocardic anterior *Vector analysis of ECG curves in anterior myocardial infarction* Probl. Cardiol. 1956, 2 (235—255) Tables 2 Illus. 10.

ECG analysis based exclusively on the partial axes in the frontal plane may lead to severe errors of diagnosis. For the purpose of demonstrating this, the vectors of the ECG waves were followed in their course and a detailed analysis is made of the waves in anterior myocardial infarction, considering it not from the point of view of its localization but of its formation, with reference to the electrophysiological laws and to the inscription of vectors in various variations.

Graur — Bucharest (VI, 18)

VICIU, E.

MIHAI, C.; MICU, D.; TANASESCU, M.; VICIU, E.

Extracellular fluid in hypertensive patients. Probl. card., Bucur.
2:257-262 1956.

(HYPERTENSION, physiology

increase & decrease of extracellular fluid in various
types of patients)

(BODY FLUIDS

extracellular fluid increase & decrease in hypertension)

EXERPTA MEDICA Sec 18 Vol. 1/11 Cardiovasc. Dis. May 57

3233. VICIU E. Problemele clinice și de fiziopatologie circulatorie ridicate de tratamentul chirurgical al stenozei mitrale *Clinical problems and problems of circulatory physiopathology connected with the surgical treatment of mitral stenosis* Probl. cardiocl. 1956, 2 (273—305)

With the exception of preoperative palpation, no diagnostic method is sufficient for the diagnosis of reflux. Commissurotomy only suppresses the stenosis of the valves, but fails to improve the other factors of mitral disease and it may therefore lead to mitral insufficiency, with haemodynamic disturbances of the lungs and impairment of the cardiac output. For the appreciation of the results of commissurotomy it is not sufficient that the degree of the stenosis be known; one must also take into account the interrelationship of various factors (pulmonary arteriolar resistance, capillary pressure, pressure in the right ventricle, the pulmonary artery, the left auricle etc.), all of which may respond rapidly to surgical intervention, with the exception of the pulmonary arteriolar resistance, which is influenced least of all.

Graur — Bucharest (VI, 9, 18)

VIGIU, E., dr.; ARSENESCU, Gh., dr.; RUSSU, M., dr.; DULGHERU, Carmen, dr.;
BREASLA, I., dr.; CHEORGHESCU, B., dr.; TACORIAN, S., dr.

Investigations of cardiovascular disorders in patients with portal
cirrhosis with ascites. Med. inter., Bucur 13 no.3:389-399 Mr '61.

1. Lucrare efectuata in Clinica a V-a medicala, Spitalul "Vasile
Roaita" I.M.F., Bucuresti, director prof. T.Spirchez.

(LIVER CIRRHOSIS complications) (ASCITES complications)
(CARDIOVASCULAR DISEASES)

VICIU, E., dr.; DULGHERU, Carmen, chim.; BUSEU, M., L.; CRISA, Aureliã, chim.;
GANE, Nadia, chim.; BUCUR, G., chim.

Functional examination of the liver in cardiac insufficiency.
(Considerations on dysproteinemia, serum transaminases, ammonemia
and other function tests). Med. intern. 14 no.1:41-55 Ja '62.

1. Lucrare efectuata in Clinica a V-a medicala "V. Roaita".
(HEART FAILURE, CONGESTIVE physiology)
(LIVER FUNCTION TESTS) (BLOOD PROTEINS chemistry)
(TRANSAMINASES blood) (AMMONIA blood)

VICIU, Emil, dr.; SAFIRESCU, Theodor, dr.; BULANDRA, C., dr.

The clinical value of rheography. Med. intern. 14 no.2:241-254
F '62.

1. Lucrare efectuata in Clinica a V-a medicala, Spitalul "Vasile
Roaita", I.M.F. Bucuresti (director: prof. T. Spirchez).
(PLETHYSMOGRAPHY)

VIGIU, E., dr.; BULANDRA, C., dr.; SAFIRESCU, T., dr.; DULGHERU, Carmen, dr.

Cerebral circulation in hypertensive patients. Med. intern. 15
no.2:185-190 F '63.

1. Lucrare efectuata in Clinica medicala a Spitalului "V. Roaita",
I.M.F. Bucuresti (director: prof. T. Spirchez).
(HYPERTENSION) (CEREBRAL ARTERIES) (BLOOD CIRCULATION)

VICIU, R.

VICIU, R. Breaking through the ceiling in the Operation of Breaking through the Ceiling system. p. 11.

Vol. 2, no. 12, Dec. 1956

ARIPILE PATRIEI

TECHNOLOGY

Rumania

So: East European Accession, Vol. 6, No. 5, May 1957

VICIU, R.

The radio compass. p. 18. ARIPILE PATRIEI. (Asociatia Voluntara pentru
Sprijirea Apararii Patriei) Bucuresti.
Vol. 2, no. 8, Aug. 1956.

SOURCE: East European Accessions List, (EEAL), Library of Congress,
Vol. 5, No. 11, November, 1956.

VICKOVA, M.

Organization of child care in Gottwaldov. Cesk. zdravot. 6 no.8:
460-462 Aug 58.

(CHILD WELFARE

child care organiz. in Czech. (Cz))

CZECHOSLOVAKIA

VOPATOVA, M., MD; VICKOVA, M., MD.

Institute of Haematology and Blood Transfusion (Ustav
hematologie a krevni transfuze), Prague (for both)

Prague, Vnitřní lékařství, no 10, 1963, pp ~~960~~ 960-966

"On the ~~Met~~ Metabolism of Blood Platelets."

VICKOVA, Z.; SUNDERHAUF, F.; PROCHZKA, V.

Percentage of sulfur during combustion of inferior lignite in boiler units.
p. 198

PALIVA. (Ministerstvo paliv a Ceskoslovenska vedecka technicka spolocnost
pro vyuziti paliv pre Ceskoslovenska akademii ved) Praha, Czechoslovakia
Vol. 39, no. 6, June 1959

Monthly List of East European Accessions (EEAI) LC, vol. 9, no. 1,
Jan. 1960

Uncl.

HEJTMANEK, M.; Za technické spolupráce VÍCIKOVÉ, L.

1st isolation of *Microsporium cookei* Ajello 1959 in the territory of Czechoslovakia. Česk. epidem. 11 no.2:127-130 Mr '62.

1. Katedra biologie lékařské fakulty University Palackého v Olomouci.

(MICROSPORUM) (SOIL microbiol)

VICOL, A.

2

RUMANIA

Dr V. LUNTEA, Dr S. REICHERT, Dr E. ALEXANDRESCU, Dr A. VICOL and
Dr H. TOMOI, Public Health Office (Sanepidul) and Infectious Diseases
Hospital (Spitalul de boli contagioase) Arad.

"Comments Regarding Some Cases of Botulism."

Encheant, Microbiologia, Parasitologia, Epidemiologia, Vol 7, no 6,
Nov-Dec 1962, pp 535-539.

Abstract: Report of 9 sporadic cases seen between 1948 and 1959; 2
died. Five were ascribed to ingestion of home-cured pork. Details
of laboratory work-up and treatment are given. Three tables; 2
Rumanian and 1 French reference.

1/1

27

VICOL, C., ing.; DODU, A. ing.

New equipment in worsted spinning mills and their influence on the yarn quality. Ind text Rum 15 no. 1: 16-23 Ja '64.

VICOL, Cornel Emeric

Contributions to the knowledge of the distribution of some
plants in Rumania. Studi! biol Cluj 14 no.2:195-200 '63.

1. Center of Biologic Research, Rumanian Academy, Cluj Branch.

VICOL, Emeric Cornel

New data on Rumanian flora. Studii biol Cluj 14 no.1:
73-79 '63.

VICOL, P.; IONESCU, G.

Installations for the production and connection stations. (To be contd.) p. 120.
(ENERGETICA. Vol. 5, no. 3, Mar. 1957, Rumania)

SO: Monthly List of East European Accessions (EEAL) LC. Vol. 6, No. 12, Dec. 1957
UNCL.

VIC-L, I.

Installations for the production and distribution of compressed air in modern transformer and connection stations. Pt. 2 (To be contd.)

p. 387 (Energetica. Vol. 5, no. 8, Aug. 1957. Bucaresti, Rumania)

Monthly Index of East European Accessions (EEAI) LC. Vol. 7, no. 2,
February 1958

VICCL, P.

Reduction of investment costs in the field of electric power. p. 236.

ENERGETICA. (Asociatia Stiintifica a Inginerilor si Tehnicienilor din
Romania si Ministerul Energiei Electrice si Industrii Electrotehnice)
Bucuresti, Rumania
Vol. 7, no. 6, June 1959.

Monthly list of Eastern European Accession Index (EEAI) LC vol. 8, No. 11
November 1959
Uncl.

23982

R/006/60/008/005/001/001
A231/A126

6,1240
AUTHORS:

Vicol, Pavel, and Lăzărescu, Stelina, Engineers

TITLE:

Underground electric conductors of very high voltage. Construction of the first 110-kv underground conductor in the capital

PERIODICAL:

Energetica, v. 8, no. 5, 1960, 193 - 206

TEXT:

The article deals with very high-voltage underground electric cables used for the transmission of electric power in cities, and with the laying of the first very-high-voltage cable in Bucharest. The authors first present some general considerations on the characteristics of cables, i. e. insulation, shielding, phenomena of high voltages, dielectric losses, thermal stability of the cables, ionizing phenomena, thermal dilatation difference between the insulating mass and the Pb sheath, the use of high pressure in cables of very high-voltage cables, and the particularities of the laying technology, cables with external gas pressure, as well as termination boxes and junction boxes. The first 110-kv underground cable of Bucharest has been laid by the Intreprinderea nr 1 a Trustului de Construcții și Montaje Energetice (No. 1 Enterprise of the Power Engineering Construction and Assembly Trust) on the basis of a project

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R/006/60/008/005/001/001

Underground electric conductors of very high voltage. .. A231/A126

worked out by the Institutul de Studii și Proiectări Energetice (Institute of Power Engineering Studies and Designs). The 2,000-m long cable is leading from the Dimbovita River in northern direction to a 110/30/10-kv transformer substation located in the center of the consumer area. The cable used was a single-conductor cable with low-pressure oil circulation, a section of which is shown in Figure 16. The central channel has a diameter of 10 mm, the lead sheath a thickness of 1.9 mm, and the insulation a thickness of 8.5 mm. The installation level scheme of the underground cable is shown in Figure 17. The following factors have been taken into consideration in the selection of the track: use of the street section between the sidewalk margin and gutter, possible avoidance of streets with heavy streetcar traffic, avoidance of other 6- or 30-kv cable tracks. The three single-conductor cables which form the three-phase channel, have been laid directly into the ground according to Figure 18. The channel is protected by 6-cm thick prefabricated concrete panels and is filled with selected earth of low thermal resistivity. The 2,000-m long track is formed of four sections separated by three sets of normal junction boxes. The constant-pressure oil reservoirs are located in the garret of the substation, whereas the variable-pressure oil reservoirs have been installed in a semiclosed brick structure at the junction of the cable with the aerial. The laying has been started at the

Card 2/6

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R/006/60/003/005/001/001

Underground electric conductors of very high voltage. .. A/231/A125

substation and was accomplished on the basis of the usual technological instructions, provided with special protection measures to avoid extra mechanical efforts. During the laying operation, the cable was maintained at a 0.3 kg/cm^2 oil pressure. All operations, i.e., digging, dumping of the earth, marking the track section being under construction, traffic regulating operations, etc., have been organized to serve as a model for similar work on public roads of the capital. The terminal boxes were of the single-conductor type. The cable has been introduced into the pothead through a conical piece of aluminum, fixed to the pothead flange and well fastened to the cable. During the whole connecting operation, the cable was maintained under pressure. The usual type junction boxes have been accomplished in a very similar way. The cylindrical boxes were made of copper. The connection between the neighbouring conductors has been made of a copper piece, similar to the terminal bolt. The ditch into which the set of 3 junction boxes has been buried is 2 x 6 m and 1.8 m deep, and was lined with thick boards. The cable has again been maintained under constant pressure as in the case of the terminal box. The manufacture of the termination and junction boxes has been accomplished by a team of specialists. The laying of the first 110-kv underground cable in Bucharest has been well accomplished within the scheduled time. There are 6 graphs, 19 figures, 13 diagrams, 1 photo and

Card 3/6

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R/006/60/008/005/001/001

Underground electric conductors of very high voltage. .. A/231/126

19 references: 4 Soviet-bloc and 15 non-Soviet-bloc.

Figure 16: Section through 110-kv single-conductor cable

I: central channel, II: insulation, impregnated paper, III: lead sheath, IV: PVC sheath, V: copper conductor, VI: bands of carbon paper, VII: bands of metal-coated paper, VIII: bands of zinc-coated copper

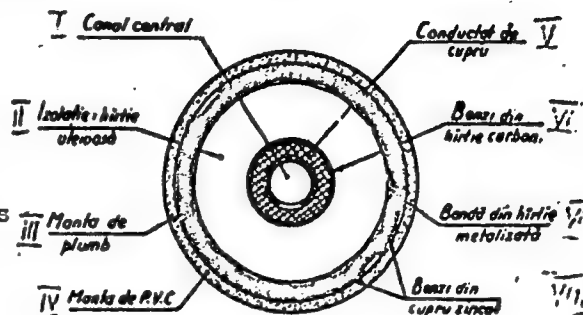


Fig. 16. Secțiune prin cablu cu circulație de ulei folosit la canalizarea 110 kV din București.

Card 4/6

VICOL, Pavel, ing.; MILITARU, Paul, ing.; TENCU, Constantin, ing.;
LAZARESCU, Stelian, ing.

Crossing the Danube River in Rumania by means of subfluvial cables.
Energetica Rum 9 no.5:191-209 My '61.

VICOL, Pavel, ing. (Bucuresti); IONESCU, Gabriel, ing. (Bucuresti)

The construction realization of the compressed air installations in the transforming stations and connections.
Energetica Rum 10 no.3:96-100 Mr '62.

1. Director tehnic al Trustului de constructii si montaje energetice (for Vicol). 2. Inginer sef adj. la Intreprinderea de constructii metalice si prefabricate, Bucuresti (for Ionescu).

VICOL, Pavel, ing.

New technology in constructing and assembling electric power
installations; achievements and outlook. Energetica Rum
12 no. 1: 22-29 Ja '64.

VICOL, P., ing.

From the achievements of the branch of electric power construction and installations. Energetica Rum 12 no. 8:445-451 Ag '64.

1. Technical Director of the Trust of Electric Power Construction and Installations, Bucharest.

POCCELINICU, D.; VILCEANU, Al. Iuliana

The influence of prolonged lighting on the pineal structures of
the male *Anas platyrhynchos* dom. (drake). *Stuc. cercet. endocr.* 15
no.5:487-488 '64.

VICOLEANU, N.; POSTELNICU, DL.; TEODORU, V.

Some observations in connection with the structure of epiphysis in aged birds and ruminants. p. 521.

COMUNICARILE. Bucuresti. Vol. 9, no. 5, May 1959.

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Uncl.

POSTELNICU, D.; VICOLEANU, Niculina

Observations on the structure of the thyroid in relation to the sexual cycle in birds (ducks). Stud. cercet. endocr. 13 no.5: 651-654 '62.

(THYROID GLAND) (GONADS) (POULTRY)

VICOMI, I; Sacuin, I.

From the activities of the Circle of the Scientific Association of Engineers and Technicians of Rumania in the N. Balcescu Cellulose and Paper Mills. p. 232.

CELULOZA SI MIRTIE. (Asociatia Stiintifica a Inginerilor si Technicienilor din Romania si Ministerul Industriei Petrolului si Chimie) Pucuresti, Rumania. Vol. 8, no. 7, July 1959.

Monthly List of East European Accessions (EEAI) LC, Vol. 9, no. 2, Feb. 1960.

Uncl.

Vicolanu, Niculina

POSTELNICU, D.
SURNAME (in caps); Given Name

Country: Rumania

Academic Degrees: --

Affiliation: --

Source: Bucharest, *Comunicările Academiei Republicii Populare Române*,
No 4, 1961, pp 479-482.

Data: "Hepatic Hypertrophy With Steatosis Obtained in Rats After
the Administration of Methyl Thiouracil."

Co-authors:

HOLEBAN, R.

SAHLEANU, V.

DRACOMIRSCU, Maria

VICOLANU, Niculina

VICSAI, M.
SUCH, G.; VICSAY, M.; POROSZASZ, J.

The problem of symmetry in the vasomotor reflex activities. Acta
physiol. hung. 14 no.1:27-38 1958.

1. Institute of Physiology, Medical University, Szeged.

(REFLEX

vasomotor, asymmetry of responses elicited from symmetrical
areas)

MADARASZ, I.; OBAL, F.; VICSAY, Margit; TAKACS, O.

Analysis of the vegetative and EEG responses to hypoxia. Acta
physiol. acad. sci. Hung. 28 no.1:77-88 '65.

1. Institute of Physiology, University Medical School, Szeged.
Submitted September 4, 1964.

PROCESSES AND PROPERTIES INDEX

2

*The Mutual Solubility of Carbides of High Melting Metals. L. F. Molokov and V. V. Vicker (*Vestnik Metallopromishlennosti (Messenger Metall Ind.)*, 1936, 18, (8), 75-88).—[In Russian.] The mixed carbide powders were pressed into rods which were sintered at 1500°–2000° C. and examined by X-rays. The results showed that TiC forms solid solutions at 20° C. with up to 82% WC, 85% Mo₂C, and 40% Cr₃C₂, and a continuous series of solid solutions with VC. WC and Mo₂C dissolve only small amounts of TiC; Cr₃C₂ dissolves about 10% TiC; Mo₂O dissolves about 53% WC; VO dissolves about 76% Mo₂C or WC. Quaternary systems containing 50–55% TiC, 5–9% Mo₂C, 22–28% WC, and 22–50% VC are homogeneous and have the VC lattice. Melts containing 21–40% TaC, 40–0% Mo₂C, and 39–60% WC have the TaC lattice. In melts with a 1:1 or 1:2 molecular ratio of TaC and WO lattices of both constituent phases were found.—D. N. H.

ASM-AIA METALLURGICAL LITERATURE CLASSIFICATION

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1ST AND 2ND COVER										3RD AND 4TH COVER									
PROCESSES AND PROPERTIES INDEX																			
<p><i>Be</i> <i>a-1</i></p> <p>Use of hydroxyquinoline, strychnine, and bromine for the gravimetric determination of vanadium, and of quinoline for the separation of vanadium from chromium. A. J. J. and V. Vanadium. <i>Chem. Soc. Trans.</i>, 1902, 6, 1-7. V may be determined by ppt. a solution of Na_2VO_4 by adding AcOH, solution of Cr hydroxyquinoline, strychnine, bromine, or quinoline. The ppt. is ignited and weighed as V_2O_5. Among these reagents, only quinoline serves to separate V_2O_5 and Cr_2O_3. The ppt. formed by adding quinoline in AcOH is ignited to V_2O_5, the filtrate is reduced by SO_2, and the Cr pptd. by eq. NH_3 and ignited to Cr_2O_3. E. S. Hansen.</p>																			
<p>ANAL. & METALLURGICAL LITERATURE CLASSIFICATION</p>																			

1ST AND 2ND EDITIONS		3RD AND 4TH EDITIONS	
PROCEDURES AND PROPERTIES INDEX			
<p>BC</p> <p>Determination of iron in presence of manganese by hydrazine hydrate. A. JILKA and V. VICOVART (Coll. Czech. Chem. Commun., 1931, 3, 379-384).—About 2 g. of NH_4Cl are added to a dil. solution of Fe^{+++} and Mn^{++} salts and then dil. aq. NH_3 until the solution turns Ma-red to yellow ($p_H=4.4-5.2$). The boiling solution is precipitated by a slight excess of aq. $\text{N}_2\text{H}_4\cdot\text{H}_2\text{O}$ (1:25) added in one portion. A granular ppt. is obtained which, after further boiling, must be filtered and washed with hot aq. NH_4Cl (1 g. per 100 c.c. and 1 c.c. $\text{N}_2\text{H}_4\cdot\text{H}_2\text{O}$) and then with hot H_2O until the Cl^- is removed, and finally calcined and weighed as Fe_2O_3. The method compares satisfactorily with the determination by hydroxyquinoline or pyridine. The Mn may be determined in the filtrate by the phosphate, hydroxyquinoline, or sulphide method. M. S. BURN.</p>			
<p>ASB.164 METALLURGICAL LITERATURE CLASSIFICATION</p>			
1ST EDITION		2ND EDITION	
1ST EDITION		2ND EDITION	

CA

Use of hydroxyquinoline, strychnine and brucine for the gravimetric estimation

of vanadium and of quinoline for the separation of vanadium from chromium. A. JILKA AND V. VICOVARY. *Collection Czechoslov. Chem. Communications* 4, 1-7 (1932) — one hundred cc. of dil. Na vanadate soln., contg. 7-124 mg. of V_2O_5 , on being treated with a slight excess of 4% 8-hydroxyquinoline in glacial AcOH, or with a slight excess of 2% strychnine nitrate in water, or with a slight excess of brucine in 20% AcOH, gives a ppt. which can be ignited to form V_2O_5 . The results obtained by these 3 precipitants agree with those obtained by the more tedious $HgNO_3$ method of Rose. These reagents, however, will not serve for detg. V in the presence of CrO_4^{--} . By mixing 10 cc. of pure, synthetic quinoline with 20 cc. of glacial AcOH and dilg. to 100 cc. with water, a reagent is obtained which will ppt. VO_3^- in the presence of CrO_4^{--} . This ppt. also can be ignited to V_2O_5 , and in the filtrate the CrO_4^{--} can be reduced to Cr^{+++} by H_2SO_4 , pptd. by NH_4OH and weighed as Cr_2O_3 . All of the V pptns. were carried out in the cold except that with 8-hydroxyquinoline. W. T. H.

ASS. SLA METALLOGICAL LITERATURE CLASSIFICATION

7.

CA

Determination of iron in the presence of manganese with hydrazine hydrate. A. JILKE AND V. VACOVAK: *Collection Czechoslov. Chem. Comm.* 3, 379-84 (1931). The great difference in the soly. products of $\text{Fe}(\text{OH})_3$ and $\text{Mn}(\text{OH})_2$ permits the pptn. of $\text{Fe}(\text{OH})_3$ at pH 3-7 and of $\text{Mn}(\text{OH})_2$ at pH 8.4-10. Many seps. have been based upon these facts. It is shown here that $\text{NH}_2\text{NH}_2 \cdot \text{H}_2\text{O}$ is particularly useful in such a sep. Because of its reducing power, there is no danger that trivalent or quadrivalent Aln will be pptd. with the $\text{Fe}(\text{OH})_3$ and the Fe ppt. is thrown down in a form which is easily filtered. The hydrazine, however, should not be added to an acid soln., as it then causes the reduction of some of the Fe which then escapes pptn. The hydrazine method is suitable for pptg. small quantities of Fe in the presence of considerable Mn, in which case the basic acetate method is not altogether satisfactory. For the pptn. of about 0.1 g. of Fe^{+++} it is recommended to add to the dil. soln. about 2 g. of NH_4Cl and enough NH_4OH to change methyl red to yellow. Then heat the soln. to boiling and add a moderate excess (2-8 cc. of 4% soln.) of hydrazine hydrate. Filter, wash thoroughly with hot water, ignite and weigh as Fe_2O_3 . W. T. H.

ASB-SLA METALLURGICAL LITERATURE CLASSIFICATION

SZORADY, Istvan; VICSAY, Margit; OBAL, Ferenc

Effect of pantothenic acid on the sensitivity of the intestine
to acetylcholine in rats. Kiserletes Orvostudomány 12 no.1:
75-79 F '60.

1. Szegedi Orvostudományi Egyetem Gyermekklinika és Klettani
Intezete.

(PANTOTHENIC ACID pharmacol)
(ACETYLCHOLINE pharmacol)
(INTESTINES pharmacol)

SZORADY, Istvan; SZ.-né VICSAY, Margit; OBAL, Ferenc; PUSZTAI, Rozalia;
TOTH, János

Data on the effect of pantothenic acid on the isolated intestine.
Kiserl. orvostud. 14 no.3:281-286 Je '62.

1. Szegedi Orvostudományi Egyetem Elettani Intézete és Gyermekklinika.
(PANTOTHENIC ACID pharmacol) (INTESTINES pharmacol)

HUNGARY

OBAL, F., and VICSAY, M., of the Institute of Physiology, Medical University, Szeged [Original version not given].

"The Role of the Nervous System in the Adaptation of Oxygen Consumption to Hypoxia"

Budapest, Acta Physiologica Academiae Scientiarum Hungaricae, Supplement to Vol 22, 1963; p 18.

Abstract [Authors' English summary, modified]: In rat experiments, in air containing 8 to 10 percent O₂ the oxygen consumption of the rat drops; on reverting to air, the hypoxic reaction does not take place. In the presence of indifferent stimulus, there is an immediate increase in O₂ consumption. The organism adapts itself rapidly to repeated hypoxias combined with indifferent stimuli. The differences in reaction of the different animal species and of the individual animals are determined by the phylo- and ontogenetical development of the nervous system, as well as by the acquired individual reactivity.

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L 33793-66 RO

ACC NR: AT6025182

SOURCE CODE: HU/2505/65/028/001/0065/0076

AUTHOR: Obal, Ferenc (Szeged); Vicsay, Margit--Vichai, M. (Szeged); Madarasz, Istvan
--Madaras, I. (Szeged)

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudományi
Egyetem, Elettani Intézet)

TITLE: Role of a central nervous mechanism in the acquired tolerance to the tempera-
ture-decreasing effect of histamine /Presented at the Hungarian Physiological
Society Symposium on the "Early Manifestations of Conditioning" held in 1963/

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 28, no. 1, 1965, 65-76

TOPIC TAGS: pharmacology, hypothermia, central nervous system

ABSTRACT: When histamine is administered s.c. three times in succession at 2-3 hour intervals, rapid acquisition of tolerance to its temperature-decreasing effect occurs in the rat. On subsequent treatment with physiological saline, the body temperature does not change or is only slightly elevated. Following this, histamine causes again a steep fall in body temperature. A similar reaction can be seen in the decrease in oxygen consumption, caused by histamine. The tolerance to histamine is not suspended by saline if the latter is administered through an implanted intraperitoneal cannula. The hypothermic effect of histamine is significantly prolonged and the development of tolerance to it is delayed if the injection is
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ACC NR: AT6025182

made in a denervated skin area where the stimulus complex which accompanies histamine administration is partly absent. The phenomenon of rapid acquisition of histamine tolerance is believed to be akin to the mechanism of habituation. The compensatory nervous activity, reinforced by the repeated injections which are accompanied by the same complex of stimuli, reduces the effect of the consecutive doses as is customary with stimuli which have a peripheral site of action, according to earlier investigations. An injection of the indifferent, saline solution may eventually bring this nervous mechanism of opposing effect to the surface, although it tends to extinguish it; this extinction manifests itself in a sudden decrease in histamine tolerance with a reappearance of the response to histamine. The temperature-decreasing effect of carbachol persists after the development of histamine tolerance since the effect of carbachol is maintained through reflexes the result of which is similar to that elicited by stimuli of the central site of action. The hypothermic response to repeated doses of carbachol does not weaken and the conditioned reflex evoked by the saline solution also effects a decrease in body temperature. The development of temporary connections manifests itself in an early decrease of the effect, in the case of histamine, and in an increase of the effect, in the case of carbachol. This difference is characteristic of the peripheral, efferent-side, or central, afferent-side site of action of the stimulus. Orig. art. has: 10 figures. /Orig. art. in Eng. / JPRS: 33,500/

SUB CODE: 06 / SUBM DATE: 31Aug64 / ORIG REF: 008 / OTH REF: 015

SOV REF: 001

Card 2/2

L 15518-66

ACC NR: AT6007370

SOURCE CODE: HU/2505/65/026/00X/0006/0006

AUTHOR: Madarasz, I.; Vicsay, Margit; Takacs, O.; Obal, F.

23

B+

ORG: Institute of Physiology, Medical University of Szeged (Szegedi Orvostudományi Egyetem, Elettani Intézet)

TITLE: Reflex responses to hypoxia in young animals. [This paper was presented at the 29th Meeting of the Hungarian Physiological Society held in Szeged from 2 to 4 July, 1964.]

SOURCE: Academia scientiarum hungaricae. Acta physiologica, v. 26, Supplement, 1965, 6

TOPIC TAGS: hypoxia, rat, dog, conditioned reflex, biologic metabolism, nervous system

ABSTRACT: In a continuation of earlier experiments, the changes in the reduction of the metabolic rate and the conditioned reflex response to hypoxia have been studied in rats and dogs 0-72 days old. It was found that up to about 20 days of age, the animals respond to repeated episodes of hypoxia with almost no change in O₂ consumption and the conditioned reflex manifests itself with a decrease in O₂, i.e. the change is in the same direction as in the case of the unconditioned response. At
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ACC NR: AT6007370

around 20 days, O₂ consumption oscillates in response to the conditioned stimulus, it is often biphasic, a decrease followed by an increase. After 20 days, the opposite conditioned reaction becomes predominant consisting in an increase in O₂ consumption and it becomes more marked with advancing age. The results led to the conclusion that, parallel with the ontogenetic development of the nervous system, the vegetative balance of the organism is ensured to an increasing extent by a higher, corrective central nervous regulation. [JPRS]

SUB CODE: 06, 05 / SUBM DATE: none

Card 2/2